#### LOAN DOCUMENT

	PHOTOGRAPH THIS	SHEET
JABER	LEVEL	INVENTORY
DTIC ACCESSION NUMBER	tecty Campling Apt. J.  DOCUMENT IDENTIFICATION  POR THE	LPAFB FT-002
	I Approved for	N STATEMENT A Public Release on Unlimited  A N N N N N N N N N N N N N N N N N N
<b></b>	DISTRIBUTION	ON STATEMENT L
NTIS GRAM DIC TRAC UNANNOUNCED JUSTIFICATION  BY DISTRIBUTION/ AVAILABILITY CODES  DISTRIBUTION AVAILABILITY AND/OR SPECIAL  DISTRIBUTION STAMP		DATE ACCESSIONED  DATE ACCESSIONED  CAAR RE
		DATE RETURNED
2001011	6 036	
DATE RECEIV	ED IN DTIC	REGISTERED OR CERTIFIED NUMBER
	OTOGRAPH THIS SHEET AND RETURN TO DTIC-F	
DTIC FORM 70A	DOCIMENT PROCESSING SHEET	PREVIOUS EDITIONS MAY BE USED UNTIL

DTIC JUN 90 70A

STOCK IS EXHAUSTED.



# Quarterly Sampling Report for PAFB FT-002 Groundwater Treatment Operational Quarter January-March 1994

#### Prepared for

Plattsburgh Air Force Base Plattsburgh AFB, New York 12903-3506

#### Prepared by

EA Engineering, Science, and Technology
The Maple Building
3 Washington Center
Newburgh, New York 12550

April 1994

60343.04.0002

AQM01-04-0625

### DEFENSE TECHNICAL INFORMATION CENTER REQUEST FOR SCIENTIFIC AND TECHNICAL REPORTS

Ti:	AFCEE Collection	-agg-ske-veg-r03031087.as-e-rende-r006831088.as->=374443105505.ase-	***************************************
	Manual College		popular na 1 spenso a regional de 200 se posses a popular de 200 se popular po
1,	Raport Avoilability (Flease check une bon)	29. Mumber of	25. Forwarding Date
	This report is available. Complete sections 2a - 2f.	Copies Forwarded	
	•	خ و	0.1200
	Distribution Statement (Please check ONE DOX)	Leach	July/2000
•	. Distribution Statement (Please check UNC DOX) Directive 5230.24, "Distribution Statements on Technical Documents	- 18 Mar 97 commins sever	distribution statements, as
des	cribed briefly below. Technical documents MUST be assigned a distri	bution statement.	4 diam 199 dans 11 2 dag pm 1 1 m mmb mm
M	DISTRIBUTION STATEMENT A: Approved for public rei		
	DISTRIBUTION STATEMENT B: Distribution authorized	to U.S. Government A	lgencies only.
	DISTRIBUTION STATEMENT C: Distribution authorized contractors.	to U.S. Government #	Agencies and their
U	DISTRIBUTION STATEMENT D: Distribution authorized DoD contractors only.	to U.S. Department of	Defense (DoD) and U.S
H	DISTRIBUTION STATEMENT E: Distribution subsorbed components only.	to U.S. Department of	Defense (DoD)
	DISTRIBUTION STATEMENT F: Further dissemination a indicated below or by higher authority.	mly as Grected by the	vaniraling Dati office
	DISTRIBUTION STATEMENT X: Distribution authorized individuals or enterprises eligible to obtain export-control Directive \$230.25, Withholding of Unclassified Technical	led technical data in ac	cordance with DoD
2d.	Reason For the Above Distribution Statement (in according	lance with DoD Directive 52	230.24)
2e.	Controlling Diffice	27. Date of Distri Determination	bulion Statement
	HQ AFLEE		2000
	his report is NOT forwarded for the following reasons	The state of the s	
0 1	it was previously forwarded to DTIC on(6a	io and the All number	39.
			00.000)
	it will be published at a later date. Enter approximate dat	AND 40 40 50 50 10 10 10 10 10 10 10 10 10 10 10 10 10	amina a mara conservative e mentere e more estados e proprios e pr
A	n <b>accordance with t</b> he provisions of DoD Obsetive 3200.1 I <b>sca</b> use:	<b>2, the raqu</b> asion door	ment is not supplied
***	and the second s	magamanthema pung pung bagi bagi paggarapa punggarapan meneruntah berarapa pungan sa Labiga hapa serang ang ang ang salapa punggarapa punggarapa serang salaban serang salaban salaban salaban sala	The Control of the Commentation and arthur traversistic and a 1990 to
. مؤر	nametric consistence in the fighting of the fight of the consistence and an account of the configuration of the consistence and the configuration of the con	Province country that the recording \$1877,14 (\$1846, \$1636 or 19).	and the model of the control of the
	indical Carlos C		والمستعدد شفر عدا والانبار وروا والمدو الملك والدار
13	IVA. POOL		
	Market State of the State of th	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	4
2/1	2-534-1437 2-a-sanatan bandan kanada k	and and the second of the seco	101-04-0625

## QUARTERLY SAMPLING REPORT FOR PAFB FT-002 GROUNDWATER TREATMENT FACILITY OPERATIONAL QUARTER JANUARY-MARCH 1994

#### 1. INTRODUCTION

Pursuant to reporting obligations under Contract No. F30636-91-C0154 (EA Project No. 60343.04), EA hereby submits five copies of the Quarterly Sampling Report for the operational quarter January-March 1994. This report contains raw laboratory data from the quarterly sampling event conducted on 31 January 1994 (Appendix A). Also presented are results from ambient air and air stripper exhaust sampling (AS-05-03, AS-07-03) conducted 2 March 1994 (Appendix B). Surface water (Weapons Storage Area [WSA] stream) analytical results (SW-08-02) and spent granular activated carbon (AC-11-02) analyses conducted on 31 March 1994 are presented in Appendix C.

#### 2. SAMPLE DATA AND DISCUSSION

Aqueous samples were obtained on 31 January 1994 for the following treatment facility sample locations: combined raw water influent (GW-01), clarifier effluent (TW-02), air stripper effluent (TW-03), mid-bed carbon (TW-04), and final treated water effluent (TW-06). Complete raw data packages and chain-of-custody forms are included in Appendix A. Samples were obtained and analyzed in accordance with the March 1993 Interim Sampling and Analysis Plan.

The metals clarifier unit is removing iron at an efficiency in excess of 94 percent based on an average influent level of 12 mg/L and an average clarifier effluent level of 0.68 mg/L. The average final effluent level was 0.21 mg/L for an overall removal efficiency in excess of 98 percent.

The shallow tray air stripper unit is removing volatile organics (601/602 series) at an efficiency in excess of 99 percent based on an average influent level of 8.97 mg/L and an average stripper effluent level of 0.45 mg/L. The carbon filtering beds further reduce volatile concentrations to undetectable levels. Overall removal efficiency for volatile compounds exceeded 99 percent. Please note this averaging method only includes positive detections.

The treatment plant performance data for 8270 series (semi-volatile compounds) indicates an overall plant removal to undetectable levels based upon a combined loading of 37.0  $\mu$ g/ml. Series 8270 compounds were not detected at either the TW-04 or TW-06 locations.

In accordance with the Interim Sampling and Analysis Plan, aqueous samples were collected in the WSA stream and analyzed for volatiles (EPA 601/602), semi-volatiles (EPA 8270), and total metals. Results of this analysis are presented in Appendix C. The WSA stream samples, identifiable as SW-08-02, were collected on 31 March 1994 (Sampling Event No. 24). Sampling of this media was delayed until early spring due to ice cover at the WSA stream location.

Ambient air samples were collected on 2 March 1994 from the air stripper exhaust (AS-05-03), and 100 ft outside and upwind of the treatment building. Sampled air was drawn through multicomponent sorbent traps (Tenax and Carbon). Placement of sampling devices was in accordance with the Interim Sampling and Analysis Plan. Sample pumping rates were established at 0.01 liter/minute and held continuously for 7 hours, yielding a sample volume of 4.2 L. A laboratory supplied trip blank accompanied the ambient air samples (TB-AS-03). Laboratory analysis was accomplished in accordance with EPA Method TO-1 from the EPA 600/4-84-041 compendium.

#### Appendix A

Raw Data Package for Quarterly
Sampling Event No. 20
(Operational Period January-March 1994)



#### ATLANTIC TESTING LABORATORIES, Limited

P.O. Box 399 48 LaGrasse Street Waddington, NY 13694 Phone: (315) 388-4452 Fax: (315) 388-5510

March 3, 1994

P.O. Box 29 Canton-Potsdam Road Canton, NY 13617 Phone: (315) 386-4578 Fax: (315) 386-1012

EA Engineering, Science and Technology The Maple Building 3 Washington Center Newburgh, New York 12550

Attn.: John Carnright

Re: Misc. Sampling and Analysis

ATL Project Number: ELVT5012A-03-94

ATL Sample Numbers: 94-0460 through 94-0464

Dear Mr. Carnright:

Enclosed are the analytical reports for the samples submitted by Paul VanLinder to Atlantic Testing Laboratories, Limited on January 31, 1994.

Please feel free to contact our office if we may be of any further assistance.

Sincerely,

James P. Smith, Ph. D.

Environmental Laboratory Manager

NYSDOH-ELAP Number 10819

JPS/sal

Enclosure

ATL REPORT NO.: VT5012-02-94 CLIENT NAME: EA Engineering, Science and Technology

ATL Accession Number	Client's ID of Sample	Parameter	Result	Date Analyzed
94-0460	GW-01-20	Total Phenols	0.037 mg/L	02/15/94
		Total Dissolved Solids	384 mg/L	02/04/94
	- 1 000 00	Total Suspended Solids	4 mg/L	02/02/94
94-0461	TW-02-20	Total Phenols	0.040 mg/L	02/15/94
		Total Dissolved Soilds	483 mg/L	02/04/94
		Total Suspended Soilds	12 mg/L	02/02/94
94-0464	TW-06-20	Total Phenols	<0.005 mg/L	02/15/94
		Total Dissolved Solids	452 mg/L	02/04/94
		Total Suspended Solids	<1 mg/L	02/02/94

APPROVED BY;

NYSDOH-ELAP NO. 10819

ATL PROJECT NO.: VT5012-02-94 CLIENT: EA Engineering, Science and Technology

ATL Accession	Client's ID		Result	Date
Number	of Sample	Parameter	(mg/L)	Analyzed
94-0460	GW-01-20	Total Aluminum	<0.2	02/10/94
		Total Antimony	<0.005	02/10/94
		Total Arsenic	0.006	02/03/94
		Total Barium	<0.2	02/03/94
		Total Beryllium	< 0.0005	02/08/94
	) 	Total Cadmium	< 0.0005	02/03/94
		Total Calcium	71	02/08/94
		Total Chromium	<0.01 *	02/09/94
		Total Cobalt	< 0.005	02/10/94
		Total Copper	< 0.02	02/03/94
		Total Iron	12	02/03/94
		Total Lead	<0.003	02/08/94
		Total Magnesium	17	02/08/94
		Total Manganese	0.38	02/10/94
		Total Mercury	<0.0002	02/04/94
		Total Nickel	<0.04	02/14/94
,		Total Potassium	<b>&lt;</b> 5	02/14/94
		Total Selenium	<0.005	02/08/94
		Total Silver	<0.0005	02/15/94
		Total Sodium	39	02/14/94
		Total Thallium	<0.005	02/10/94
		Total Vanadium	<0.01	02/15/94
		Total Zinc	<0.02	02/02/94

NYSDOH-ELAP NO. 10819

## ATL PROJECT NO.: VT5012-02-94 CLIENT: EA Engineering, Science and Technology

ATL Accession	Client's ID	T The state of the	Result	Date
		_		
Number	of Sample	Parameter	(mg/L)	Analyzed
94-0461	TW-02-20	Total Aluminum	<0.2	02/10/94
		Total Antimony	<0.005	02/10/94
		Total Arsenic	<0.005	02/03/94
		Total Barium	<0.2	02/03/94
		Total Beryllium	< 0.0005	02/08/94
		Total Cadmium	< 0.0005	02/03/94
		Total Calcium	13	02/08/94
		Total Chromium	< 0.005	02/07/94
		Total Cobalt	< 0.005	02/10/94
		Total Copper	<0.02	02/03/94
		Total Iron	0.68	02/03/94
		Total Lead	0.004	02/08/94
		Total Magnesium	13	02/08/94
		Total Manganese	0.12	02/10/94
		Total Mercury	< 0.0002	02/04/94
		Total Nickel	<0.04	02/14/94
		Total Potassium	<5	. 02/14/94
		Total Selenium	< 0.005	02/08/94
		Total Silver	<0.0005	02/15/94
		Total Sodium	161	02/14/94
		Total Thallium	<0.005	02/10/94
		Total Vanadium	<0.01	02/15/94
		Total Zinc	0.025	02/02/94

APPROVED BY:

NYSDOH-ELAP NO. 10819

ATL PROJECT NO.: VT5012-02-94 CLIENT: EA Engineering, Science and Technology EPA 602 Results

Date Analyzed: 02/04/94

ATL Accession Number	Client's ID of Sample	Parameter	Result (µg/L)
94-0460	GW-01-20	Benzene	210
		Toluene	940
		Ethylbenzene	410
		p-Xylene	1420 *
		Chlorobenzene	<50
		m-Xylene	*
		o-Xylene	360
		1,4-Dichlorobenzene	<50
		1,3-Dichlorobenzene	<50
		1,2-Dichlorobenzene	<50

<sup>\*</sup> These compounds co-elute. The reported value may reflect the concentration of either of the components, or a combination of both.

APPROVED BY

NYSDOH-EI(AP/NO. 10819

ATL PROJECT NO.: VT5012

CLIENT: EA Engineering, Science and Technology

**EPA 602 Results** 

Date Analyzed: 02/07/94

ATL Accession Number	Client's ID of Sample	Parameter	Result (µg/L)
94-0462	TW-03-20	Benzene	2.2
		Toluene	4.9
		Ethylbenzene	3.3
		p-Xylene	8.6 *
		Chlorobenzene	<0.5
		m-Xylene	*
		o-Xylene	4.8
		1,4-Dichlorobenzene	<0.5
		1,3-Dichlorobenzene	<0.5
		1,2-Dichlorobenzene	<0.5
		MTBE	<0.5

<sup>\*</sup> These compounds co-elute. The reported value may reflect the concentration of either of the components, or a combination of both.

APPROVED BY:

NYSDOH-ELAP/NO. 10819

Report Number: VT5012-02-94

Client Name: EA Engineering, Science and Technology

ATL Accession Number: 94-0460 Client Sample ID: GW-01-20

**EPA 601 Results** 

Date Analyzed: 02/04/94

Compound	Result (ug/L)	Compound	Result (ug/L)
Chloromethane	<50	1,2-Dichloropropane	<50
Bromomethane	<50	cis-1,3-Dichloropropene	<50
Dichlorodifluoromethane	<50	Trichloroethene	1270
Vinyl Chloride	<50	Dibromochloromethane	<50
Chloroethane	<50	1,1,2-Trichloroethane	<50
Methylene Chloride	<50	trans-1,3-Dichloropropene	<50
Trichlorofluoromethane	<50	2-Chloroethylvinyl ether	<50
1,1-Dichloroethene	<50	Bromoform	<50
1,1-Dichloroethane	<50	1,1,2,2-Tetrachloroethane	<50
trans-1,2-Dichloroethene	<50	Tetrachloroethene	<50
Chloroform	<50	Chlorobenzene	<50
1,2-Dichloroethane	<50	1,3-Dichlorobenzene	<50
1,1,1-Trichloroethane	<50	1,2-Dichlorobenzene	<50
Carbon Tetrachloride	<50	1,4-Dichlorobenzene	<50
Bromodichloromethane	<50	cis-1,2-Dichloroethene	4360

APPROVED BY

NYSDOH ELAP ID 10819

DATE: Mar. 3,94

DISCLAIMER: All sampling services and analytical procedures are performed in accordance with recognized analytical methodologies. The full extent of any and all liability for actual and consequential damages for the services performed shall be limited to reperformance or cost of said work. ATL is not liable for data interpretation by others.

**ATL PROJECT NO.: VT5012-02-94** 

CLIENT: EA Engineering, Science and Technology

**EPA 602 Results** 

Date Analyzed: 02/04/94

ATL Accession Number	Client's ID of Sample	Parameter	Result (μg/L)
94-0463	TW-04-20	Benzene	<0.5
		Toluene	<0.5
		Ethylbenzene	<0.5
		p-Xylene	<0.5
		Chlorobenzene	<0.5
		m-Xylene	<0.5
		o-Xylene	<0.5
		1,4-Dichlorobenzene	<0.5
		1,3-Dichlorobenzene	<0.5
		1,2-Dichlorobenzene	<0.5
		MTBE	<0.5

APPROVED BY:

NYSDOH-ELAP/NO. 10819

Report Number: VT5012-02-94

Client Name: EA Engineering, Science and Technology

ATL Accession Number: 94-0462 Client Sample ID: TW-03-20

**EPA 601 Results** 

#### Date Analyzed:

	Result		Result
Compound	(ug/L)	Compound	(ug/L)
Chloromethane	<0.5	1,2-Dichloropropane	<0.5
Bromomethane	<0.5	cis-1,3-Dichloropropene	<0.5
Dichlorodifluoromethane	<0.5	Trichloroethene	7.4
Vinyl Chloride	<0.5	Dibromochloromethane	<0.5
Chloroethane	<0.5	1,1,2-Trichloroethane	<0.5
Methylene Chloride	<0.5	trans-1,3-Dichloropropene	<0.5
Trichlorofluoromethane	<0.5	2-Chloroethylvinyl ether	<0.5
1,1-Dichloroethene	<0.5	Bromoform	<0.5
1,1-Dichloroethane	<0.5	1,1,2,2-Tetrachloroethane	<0.5
trans-1,2-Dichloroethene	<0.5	Tetrachloroethene	<0.5
Chloroform	<0.5	Chlorobenzene	<0.5
1,2-Dichloroethane	<0.5	1,3-Dichlorobenzene	<0.5
1,1,1-Trichloroethane	<0.5	1,2-Dichlorobenzene	<0.5
Carbon Tetrachloride	<0.5	1,4-Dichlorobenzene	<0.5
Bromodichloromethane	<0.5	cis-1,2-Dichloroethene	14.1

APPROVED BY:

NYSDOH ELAP JO 10819

DATE: Mor 394

DISCLAIMER: All sampling services and analytical procedures are performed in accordance with recognized analytical methodologies. The full extent of any and all liability for actual and consequential damages for the services performed shall be limited to reperformance or cost of said work. ATL is not liable for data interpretation by others.

Report Number: VT5012-02-94

Client Name: EA Engineering, Science and Technology

ATL Accession Number: 94-0463 Client Sample ID: TW-04-20

**EPA 601 Results** 

Date Analyzed: 02/04/94

	Result		Result
Compound	(ug/L)	Compound	(ug/L)
Chloromethane	<0.5	1,2-Dichloropropane	<0.5
Bromomethane	<0.5	cis-1,3-Dichloropropene	<0.5
Dichlorodifluoromethane	<0.5	Trichloroethene	<0.5
Vinyl Chloride	<0.5	Dibromochloromethane	<0.5
Chloroethane	<0.5	1,1,2-Trichloroethane	<0.5
Methylene Chloride	<0.5	trans-1,3-Dichloropropene	<0.5
Trichlorofluoromethane	<0.5	2-Chloroethylvinyl ether	<0.5
1,1-Dichloroethene	<0.5	Bromoform	<0.5
1,1-Dichloroethane	<0.5	1,1,2,2-Tetrachloroethane	<0.5
trans-1,2-Dichloroethene	<0.5	Tetrachloroethene	<0.5
Chloroform	<0.5	Chlorobenzene	<0.5
1,2-Dichloroethane	<0.5	1,3-Dichlorobenzene	<0.5
1,1,1-Trichloroethane	<0.5	1,2-Dichlorobenzene	<0.5
Carbon Tetrachloride	<0.5	1,4-Dichlorobenzene	<0.5
Bromodichloromethane	<0.5	cis-1,2-Dichloroethene	<0.5

APPROVED BY:

NYSDOH ELAP D 10819

DATE: Mar 394

DISCLAIMER: All sampling services and analytical procedures are performed in accordance with recognized analytical methodologies. The full extent of any and all liability for actual and consequential damages for the services performed shall be limited to reperformance or cost of said work. ATL is not liable for data interpretation by others.

#### ATL PROJECT NO.: VT5012-02-94 CLIENT: EA Engineering, Science and Technology

ATL Accession	Client's ID		Result	Date
Number	of Sample	Parameter	(mg/L)	Analyzed
94-0464	TW-06-20	Total Aluminum	<0.2	02/10/94
		Total Antimony	<0.005	02/10/94
		Total Arsenic	<0.005	02/03/94
		Total Barium	<0.2	02/03/94
		Total Beryllium	<0.0005	02/08/94
		Total Cadmium	<0.0005	02/03/94
		Total Calcium	7.6	02/08/94
		Total Chromium	< 0.005	02/07/94
		Total Cobalt	< 0.005	02/10/94
		Total Copper	<0.02	02/03/94
		Total Iron	0.21	02/03/94
		Total Lead	<0.003	02/08/94
		Total Magnesium	10	02/08/94
		Total Manganese	<0.02	02/10/94
		Total Mercury	< 0.0002	02/04/94
		Total Nickel	<0.04	02/14/94
·		Total Potassium	<5	02/14/94
		Total Selenium	< 0.005	02/08/94
		Total Silver	<0.0005	02/15/94
		Total Sodium	147	02/14/94
		Total Thallium	< 0.005	02/10/94
		Total Vanadium	<0.01	02/15/94
		Total Zinc	0.025	02/02/94

APPROVED BY:

NYSDOH-ELAP NO. 10819

DATE: Mar 394

**ATL PROJECT NO.: VT5012-02-94** 

CLIENT: EA Engineering, Science and Technology

**EPA 602 Results** 

Date Analyzed: 02/04/94

ATL Accession Number	Client's ID of Sample	Parameter	Result (µg/L)
94-0464	TW-06-20	Benzene	<0.5
		Toluene	<0.5
		Ethylbenzene	<0.5
1.		p-Xylene	<0.5
		Chlorobenzene	<0.5
		m-Xylene	<0.5
		o-Xylene	<0.5
		1,4-Dichlorobenzene	<0.5
		1,3-Dichlorobenzene	<0.5
		1,2-Dichlorobenzene	<0.5
		MTBE	<0.5

APPROVED BY:

NYSDOH-ELAP MO. 10819

Report Number: VT5012-02-94

Client Name: EA Engineering, Science and Technology

ATL Accession Number: 94-0464 Client Sample ID: TW-06-20

**EPA 601 Results** 

Date Analyzed: 02/04/94

	Result		Result
Compound	(ug/L)	Compound	(ug/L)
Chloromethane	<0.5	1,2-Dichloropropane	<0.5
Bromomethane	<0.5	cis-1,3-Dichloropropene	<0.5
Dichlorodifluoromethane	<0.5	Trichloroethene	<0.5
Vinyl Chloride	<0.5	Dibromochloromethane	<0.5
Chloroethane	<0.5	1,1,2-Trichloroethane	<0.5
Methylene Chloride	<0.5	trans-1,3-Dichloropropene	<0.5
Trichlorofluoromethane	<0.5	2-Chloroethylvinyl ether	<0.5
1,1-Dichloroethene	<0.5	Bromoform	<0.5
1,1-Dichloroethane	<0.5	1,1,2,2-Tetrachloroethane	<0.5
trans-1,2-Dichloroethene	<0.5	Tetrachloroethene	<0.5
Chloroform	<0.5	Chlorobenzene	<0.5
1,2-Dichloroethane	<0.5	1,3-Dichlorobenzene	<0.5
1,1,1-Trichloroethane	<0.5	1,2-Dichlorobenzene	<0.5
Carbon Tetrachloride	<0.5	1,4-Dichlorobenzene	<0.5
Bromodichloromethane	<0.5	cis-1,2-Dichloroethene	<0.5

APPROVED BY:

NYSDOH ELAH ID 10819

DATE: Mar 3 94

DISCLAIMER: All sampling services and analytical procedures are performed in accordance with recognized analytical methodologies. The full extent of any and all liability for actual and consequential damages for the services performed shall be limited to reperformance or cost of said work. ATL is not liable for data interpretation by others.

The state of the s	Ver Jeen
CI 1770/3. Laboratory Service Order	006522
	Page 1 of 1
194 Date of Order 31- Jan 44	
They morph Blog.	c. 6.5
50 Project Manager Phone # (9/4) 565-8100	7
Parameters  Parameters	
CHAIN-OF-CUSTODY RECORD Sample ID/Location No. A C C C C C C C C C C C C C C C C C C	irks .
16.45 Fars-64-01-20201 44 302,5 33 484 44-0400 104,5 Combined growing	dwater Influmt
-30rg4 16:40 PATR-TW-03-20 - 44 - 33 484 99-1940 561 Clarifier E.	EFF LOCKT
1 - 302.5 - 94-04/03 503.5 Carbon. Filter	1
31-301-04 16:32 PAFG-TW-06-30 201 44 30215 33 484 94-0/104 10646 Finished Ettil	Tan Supplied
Sable PATR-SW-08-01 201 - 30215 - 484 XX 94 2405 9875 Surface Waster (W	E
1-trio Banks were took	well toll
" " " " " " " " " " " " " " " " " " "	ien as a
VESUIT OF Shipm	hipment.
	2/2/94
COST & WESTER YY	in pleat!
Additional Description of Services:	d 70 1/112
1. Report due 30 days from date of order. A S Per & Aree Ment	
500 - 200 U.S. EPA CLP Extraction	
N. C. LICACE WAIGHT TAKE THE CONTRACT OF THE C	
Semivolatiles (H2O)	
STANDARD CONTROL TO THE STANDARD STANDA	
The state of the s	hipment
Tours of the state	Hipmash
Beckined (By (Signature)	Melidia
Corporate Contracts Green-Laboratory Pink-Originator Gold-Branch Copy (-100L)	1-94.



314 North Pearl Street • Albany, New York 12207 • 518 434-4546 • Fax: 518 434-0891

CLIENT: Atlantic Testing Laboratory

Date Sampled:

02/07/94

CLIENT'S SAMPLE ID: 94-0460

AES sample #: 940209 IO1

MATRIX:

Samples taken by: Client

water

Date sample received: 02/09/94 Location: None-Given

grab

			•		
PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DATE
Phenol	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Bis(2-Chloroethyl)ether	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
2-Chlorophenol	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
1,3 Dichlorobenzene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
1,4 Dichlorobenzene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Benzyl Alcohol	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
1,2 Dichlorobenzene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
2-Methylphenol	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Bis(2-Chloroisopropyl)ether	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
4-Methylphenol	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
N-Nitrosodi-n-propylamine	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Hexachloroethane	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Nitrobenzene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Isophorone	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
2-Nitrophenol	EPA-8270	<b>&lt;</b> 5	ug/l	BC-AO-50	02/15/94
2,4 Dimethylphenol	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Benzoic Acid	EPA-8270	<25	ug/l	BC-AO-50	02/15/94
Bis(2-Chloroethoxy)methane	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
2,4 Dichlorophenol	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
1,2,4 Trichlorobenzene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94



314 North Pearl Street • Albany, New York 12207 • 518 434-4546 • Fax: 518 434-0891

CLIENT: Atlantic Testing Laboratory

Date Sampled:

02/07/94

CLIENT'S SAMPLE ID: 94-0460 AES sample #: 940209 IO1

Client Samples taken by:

water

MATRIX:

Date sample received: 02/09/94 Location:

grab

None-Given

continued: PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DATE
Naphthalene	EPA-8270	21	ug/l	BC-AO-50	02/15/94
4-Chloroaniline	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Hexachlorobutadiene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
4-Chloro-3-methylphenol	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
2-Methylnapthalene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Hexachlorocyclopentadiene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
2,4,6 Trichlorophenol	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
2,4,5-Trichlorophenol	EPA-8270	<25	ug/l	BC-AO-50	02/15/94
2-Chloronaphthalene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
2-Nitroaniline	EPA-8270	<25	ug/l	BC-AO-50	02/15/94
Anthracene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Dimethyl phthalate	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Acenaphthylene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
3-Nitroaniline	EPA-8270	<25	ug/l	BC-AO-50	02/15/94
Acenaphthene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
2,4 Dinitrophenol	EPA-8270	<25	ug/l	BC-AO-50	02/15/94
4-Nitrophenol	EPA-8270	<25	ug/l	BC-AO-50	02/15/94
Dibenzofuran	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
2,4 Dinitrotoluene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
2,6 Dinitrotoluene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94



314 North Pearl Street • Albany, New York 12207 • 518 434-4546 • Fax: 518 434-0891

CLIENT: Atlantic Testing Laboratory

Date Sampled:

02/07/94

CLIENT'S SAMPLE ID: 94-0460 AES sample #: 940209 IO1

Date sample received: 02/09/94

Samples taken by: Client water MATRIX:

Location: None-Given grab

con	+:	-	~4	
COH	LI	.IIU	eu	٠

PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DATE
Diethyl phthalate	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
4-Chlorophenylphenyl ether	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Fluorene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
4-Nitroaniline	EPA-8270	<25	ug/l	BC-AO-50	02/15/94
2,Methyl-4,6-dinitrophenol	EPA-8270	<25	ug/l	BC-AO-50	02/15/94
N-Nitrosodimethylamine	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
4-Bromophenylphenyl ether	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Hexachlorobenzene	EPA-8270	<b>&lt;</b> 5	ug/l	BC-AO-50	02/15/94
Pentachlorophenol	EPA-8270	<25	ug/l	BC-AO-50	02/15/94
Phenanthrene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Di-n-butyl phthalate	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Fluoranthene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Pyrene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Butyl benzyl phthalate	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
3,3'-Dichlorobenzidine	EPA-8270	<10	ug/l	BC-AO-50	02/15/94
Benzo(a)anthracene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Bis(2-Ethylhexyl)phthalate	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Chrysene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Di-n-octyl phthalate	EPA-8270	<b>&lt;</b> 5.	ug/l	BC-AO-50	02/15/94
Benzo(b)fluoranthene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94



314 North Pearl Street • Albany, New York 12207 • 518 434-4546 • Fax: 518 434-0891

Atlantic Testing Laboratory

Date Sampled:

02/07/94

CLIENT'S SAMPLE ID: 94-0460

Date sample received: 02/09/94

AES sample #: 940209 I01	Samples taken by: MATRIX: water	Client	Loc gral		-Given
continued: PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DATE
Benzo(k)fluoranthene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Benzo(a)pyrene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Indeno(1,2,3-cd)pyrene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Dibenzo(a,h)anthracene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Benzo(g,h,i)perylene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
N-Nitrosodimethylamine	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Aniline	EPA-8270	<10	ug/l	BC-A0-50	02/15/94



#### A full service analytical research laboratory offering solutions to environmental concerns 314 North Pearl Street • Albany, New York 12207 • 518 434-4546 • Fax: 518 434-0891

CLIENT: Atlantic Testing Laboratory

Date Sampled:

02/07/94

CLIENT'S SAMPLE ID: 94-0462

Date sample received: 02/09/94

AES sample #: 940209 I02

Samples taken by: Client Location:

None-Given

MATRIX:

water

grab

				_		
	PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DATE
	Phenol	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
	Bis(2-Chloroethyl)ether	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
	2-Chlorophenol	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
	1,3 Dichlorobenzene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
	1,4 Dichlorobenzene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
]	Benzyl Alcohol	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
	1,2 Dichlorobenzene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
;	2-Methylphenol	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
	Bis(2-Chloroisopropyl)ether	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
	4-Methylphenol	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
1	N-Nitrosodi-n-propylamine	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
1	Hexachloroethane	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
3	Nitrobenzene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
	Isophorone	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
:	2-Nitrophenol	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
:	2,4 Dimethylphenol	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
1	Benzoic Acid	EPA-8270	<25	ug/l	BC-AO-50	02/15/94
1	Bis(2-Chloroethoxy)methane	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
:	2,4 Dichlorophenol	EPA-8270	<5.	ug/l	BC-AO-50	02/15/94
	1,2,4 Trichlorobenzene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94



314 North Pearl Street • Albany, New York 12207 • 518 434-4546 • Fax: 518 434-0891

CLIENT: Atlantic Testing Laboratory

Date Sampled:

02/07/94

CLIENT'S SAMPLE ID: 94-0462

2,6 Dinitrotoluene

Date sample received: 02/09/94 Location: None-Given

Samples taken by: Client AES sample #: 940209 IO2 grab water MATRIX:

	I II I		-		
continued: PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DATE
Naphthalene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
4-Chloroaniline	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Hexachlorobutadiene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
4-Chloro-3-methylphenol	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
2-Methylnapthalene	EPA-8270	16	ug/l	BC-AO-50	02/15/94
Hexachlorocyclopentadiene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
2,4,6 Trichlorophenol	EPA-8270	<5	ug/l	BC-A0-50	02/15/94
2,4,5-Trichlorophenol	EPA-8270	<25	ug/l	BC-A0-50	02/15/94
2-Chloronaphthalene	EPA-8270	<5	ug/l	BC-A0-50	02/15/94
2-Nitroaniline	EPA-8270	<25	ug/l	BC-AO-50	02/15/94
Anthracene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Dimethyl phthalate	EPA-8270	<5	ug/l	BC-A0-50	02/15/94
Acenaphthylene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
3-Nitroaniline	EPA-8270	<25	ug/l	BC-AO-50	02/15/94
Acenaphthene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
2,4 Dinitrophenol	EPA-8270	<25	ug/l	BC-AO-50	02/15/94
4-Nitrophenol	EPA-8270	<25	·ug/l	BC-A0-50	02/15/94
Dibenzofuran	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
2,4 Dinitrotoluene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
2 & Dinitrotoluene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94



314 North Pearl Street • Albany, New York 12207 • 518 434-4546 • Fax: 518 434-0891

CLIENT: Atlantic Testing Laboratory

Date Sampled: Date sample received: 02/09/94

02/07/94

CLIENT'S SAMPLE ID: 94-0462

AES sample #: 940209 I02

Samples taken by: Client

Location: None-Given

	MATRIX: water		gra	b	
continued: PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DATE
Diethyl phthalate	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
4-Chlorophenylphenyl ether	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Fluorene	EPA-8270	<b>&lt;</b> 5	ug/l	BC-AO-50	02/15/94
4-Nitroaniline	EPA-8270	<25	ug/l	BC-AO-50	02/15/94
2,Methyl-4,6-dinitrophenol	EPA-8270	<25	ug/l	BC-AO-50	02/15/94
N-Nitrosodimethylamine	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
4-Bromophenylphenyl ether	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Hexachlorobenzene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Pentachlorophenol	EPA-8270	<25	ug/l	BC-AO-50	02/15/94
Phenanthrene	EPA-8270	<b>&lt;</b> 5	ug/l	BC-AO-50	02/15/94
Di-n-butyl phthalate	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Fluoranthene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Pyrene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Butyl benzyl phthalate	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
3,3'-Dichlorobenzidine	EPA-8270	<10	ug/l	BC-AO-50	02/15/94
Benzo(a)anthracene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Bis(2-Ethylhexyl)phthalate	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Chrysene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Di-n-octyl phthalate	EPA-8270	<b>&lt;</b> 5.	ug/l	BC-AO-50	02/15/94
Benzo(b)fluoranthene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94



314 North Pearl Street • Albany, New York 12207 • 518 434-4546 • Fax: 518 434-0891

CLIENT: Atlantic Testing Laboratory

Date Sampled:

02/07/94

CLIENT'S SAMPLE ID:

94-0462

MATRIX:

Date sample received: 02/09/94

AES sample #: 940209 I02

Client Samples taken by: water

Location: grab

None-Given

con	t i	nu	ed.	•
COIL	~ 4	114	CU	

continued: PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DATE
Benzo(k)fluoranthene	EPA-8270	<b>&lt;</b> 5	ug/l	BC-AO-50	02/15/94
Benzo(a)pyrene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Indeno(1,2,3-cd)pyrene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Dibenzo(a,h)anthracene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Benzo(g,h,i)perylene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
N-Nitrosodimethylamine	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Aniline	EPA-8270	<10	ug/l	BC-A0-50	02/15/94



314 North Pearl Street • Albany, New York 12207 • 518 434-4546 • Fax: 518 434-0891

CLIENT: Atlantic Testing Laboratory

Date Sampled:

02/07/94

CLIENT'S SAMPLE ID: 94-0463 AES sample #: 940209 IO3

Samples taken by: Client

water

MATRIX:

Date sample received: 02/09/94 Location: None-Given

grab

			J		
PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DATE
Phenol	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Bis(2-Chloroethyl)ether	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
2-Chlorophenol	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
1,3 Dichlorobenzene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
1,4 Dichlorobenzene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Benzyl Alcohol	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
1,2 Dichlorobenzene	EPA-8270	<5	ug/l	BC-A0-50	02/15/94
2-Methylphenol	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Bis(2-Chloroisopropyl)ether	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
4-Methylphenol	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
N-Nitrosodi-n-propylamine	EPA-8270	<5	ug/l	BC-A0-50	02/15/94
Hexachloroethane	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Nitrobenzene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Isophorone	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
2-Nitrophenol	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
2,4 Dimethylphenol	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Benzoic Acid	EPA-8270	<25	ug/l	BC-A0-50	02/15/94
Bis(2-Chloroethoxy)methane	EPA-8270	<5	ug/l	BC-A0-50	02/15/94
2,4 Dichlorophenol	EPA-8270	<b>&lt;</b> 5.	ug/l	BC-AO-50	02/15/94
1,2,4 Trichlorobenzene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94



#### A full service analytical research laboratory offering solutions to environmental concerns 314 North Pearl Street • Albany, New York 12207 • 518 434-4546 • Fax: 518 434-0891

02/07/94 Date Sampled: Atlantic Testing Laboratory Date sample received: 02/09/94 94-0463 CLIENT'S SAMPLE ID:

Client None-Given Samples taken by: Location: 940209 I03 AES sample #:

grab MATRIX: water continued: TEST DATE PARAMETER PERFORMED METHOD RESULT UNITS NOTEBK REF 02/15/94 <5 uq/1BC-AO-50 EPA-8270 Naphthalene 02/15/94 BC-AO-50 FPA-8270 <5 uq/14-Chloroaniline 02/15/94 <5 uq/1BC-AO-50 EPA-8270 Hexachlorobutadiene 02/15/94 BC-AO-50 <5 ug/l 4-Chloro-3-methylphenol EPA-8270 02/15/94 BC-AO-50 <5 uq/1EPA-8270 2-Methylnapthalene 02/15/94 BC-AO-50 <5 uq/1EPA-8270 Hexachlorocyclopentadiene 02/15/94 BC-AO-50 <5 uq/lEPA-8270 2,4,6 Trichlorophenol 02/15/94 BC-A0-50 <25 EPA-8270 ug/12,4,5-Trichlorophenol 02/15/94 BC-AO-50 <5 ug/1EPA-8270 2-Chloronaphthalene 02/15/94 <25 BC-AO-50 uq/1EPA-8270 2-Nitroaniline 02/15/94 BC-AO-50 ⟨5 ug/1EPA-8270 Anthracene 02/15/94 <5 ug/1BC-AO-50 EPA-8270 Dimethyl phthalate 02/15/94 BC-AO-50 <5 uq/1EPA-8270 Acenaphthylene 02/15/94 BC-AO-50 <25 uq/lEPA-8270 3-Nitroaniline 02/15/94 <5 ug/1BC-AO-50 EPA-8270 Acenaphthene BC-AO-50 02/15/94 <25 uq/1FPA-8270 2,4 Dinitrophenol 02/15/94 BC-AO-50 <25 uq/1EPA-8270 4-Nitrophenol 02/15/94 BC-AO-50 <5 ug/1Dibenzofuran EPA-8270 02/15/94 BC-AO-50 <5. ug/1EPA-8270 2,4 Dinitrotoluene 02/15/94 BC-AO-50 <5 ug/1

EPA-8270

2,6 Dinitrotoluene



#### A full service analytical research laboratory offering solutions to environmental concerns 314 North Pearl Street • Albany, New York 12207 • 518 434-4546 • Fax: 518 434-0891

,,

CLIENT: Atlantic Testing Laboratory

Date Sampled:

02/07/94

CLIENT'S SAMPLE ID: 94-0463

AES sample #: 940209 IO3

Samples taken by: Client

Date sample received: 02/09/94 Location: None-Given

MATRIX: water grab

	MATRIX: Water		gra	D	
continued: PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DATE
Diethyl phthalate	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
4-Chlorophenylphenyl ether	EPA-8270	<5	ug/l	BC-A0-50	02/15/94
Fluorene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
4-Nitroaniline	EPA-8270	<25	ug/l	BC-AO-50	02/15/94
2,Methyl-4,6-dinitrophenol	EPA-8270	<25	ug/l	BC-A0-50	02/15/94
N-Nitrosodimethylamine	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
4-Bromophenylphenyl ether	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Hexachlorobenzene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Pentachlorophenol	EPA-8270	<25	ug/l	BC-AO-50	02/15/94
Phenanthrene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Di-n-butyl phthalate	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Fluoranthene	EPA-8270	<5	ug/l	BC-A0-50	02/15/94
Pyrene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Butyl benzyl phthalate	EPA-8270	<5	ug/l	BC-A0-50	02/15/94
3,3'-Dichlorobenzidine	EPA-8270	<10	ug/l	BC-AO-50	02/15/94
Benzo(a)anthracene	EPA-8270	<5	ug/l	BC-A0-50	02/15/94
Bis(2-Ethylhexyl)phthalate	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Chrysene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Di-n-octyl phthalate	EPA-8270	<b>&lt;</b> 5.	ug/l	BC-AO-50	02/15/94
Benzo(b)fluoranthene	EPA-8270	<5	ug/l	BC-A0-50	02/15/94



314 North Pearl Street • Albany, New York 12207 • 518 434-4546 • Fax: 518 434-0891

CLIENT: Atlantic Testing Laboratory

Date Sampled:

02/07/94

CLIENT'S SAMPLE ID: 94-0463

MATRIX:

Date sample received: 02/09/94

AES sample #: 940209 I03

Client Samples taken by: water

Location:

grab

None-Given

Aniline

continued: PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DATE
Benzo(k)fluoranthene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Benzo(a)pyrene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Indeno(1,2,3-cd)pyrene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Dibenzo(a,h)anthracene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Benzo(g,h,i)perylene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
N-Nitrosodimethylamine	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Aniline	EPA-8270	<10	ug/l	BC-AO-50	02/15/94



314 North Pearl Street • Albany, New York 12207 • 518 434-4546 • Fax: 518 434-0891

CLIENT: Atlantic Testing Laboratory

TW06 50

Date Sampled:

02/07/94

None-Given

CLIENT'S SAMPLE ID: 94-0464

AES sample #: 940209 IO4

tamples taken by: Cl

Date sample received: 02/09/94

Samples taken by: Client MATRIX: water

Location: grab

					mode pamo
PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DATE
Phenol	EPA-8270	<5	ug/l	BC-A0-50	02/15/94
Bis(2-Chloroethyl)ether	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
2-Chlorophenol	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
1,3 Dichlorobenzene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
1,4 Dichlorobenzene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Benzyl Alcohol	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
1,2 Dichlorobenzene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
2-Methylphenol	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Bis(2-Chloroisopropyl)ether	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
4-Methylphenol	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
N-Nitrosodi-n-propylamine	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Hexachloroethane	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Nitrobenzene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Isophorone	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
2-Nitrophenol	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
2,4 Dimethylphenol	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Benzoic Acid	EPA-8270	<25	ug/l	BC-AO-50	02/15/94
Bis(2-Chloroethoxy)methane	EPA-8270	<b>&lt;</b> 5	ug/l	BC-AO-50	02/15/94
2,4 Dichlorophenol	EPA-8270	<b>&lt;5</b> .	ug/l	BC-AO-50	02/15/94
1,2,4 Trichlorobenzene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94



314 North Pearl Street • Albany, New York 12207 • 518 434-4546 • Fax: 518 434-0891

CLIENT: Atlantic Testing Laboratory Date Sampled: 02/07/94
CLIENT'S SAMPLE ID: 94-0464 Date sample received: 02/09/94

AES sample #: 940209 IO4 Samples taken by: Client Location: None-Given

ALL Sample W. 310203 101	MATRIX: water		gra	b	
continued: PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DATE
Naphthalene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
4-Chloroaniline	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Hexachlorobutadiene	EPA-8270	<5	ug/l	BC-A0-50	02/15/94
4-Chloro-3-methylphenol	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
2-Methylnapthalene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Hexachlorocyclopentadiene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
2,4,6 Trichlorophenol	EPA-8270	<5	ug/l	BC-A0-50	02/15/94
2,4,5-Trichlorophenol	EPA-8270	<25	ug/l	BC-AO-50	02/15/94
2-Chloronaphthalene	EPA-8270	<5	ug/l	BC-A0-50	02/15/94
2-Nitroaniline	EPA-8270	<25	ug/l	BC-AO-50	02/15/94
Anthracene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Dimethyl phthalate	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Acenaphthylene	EPA-8270	<5	ug/l	BC-A0-50	02/15/94
3-Nitroaniline	EPA-8270	<25	ug/l	BC-A0-50	02/15/94
Acenaphthene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
2,4 Dinitrophenol	EPA-8270	<25	ug/l	BC-AO-50	02/15/94
4-Nitrophenol	EPA-8270	<25	ug/l	BC-A0-50	02/15/94
Dibenzofuran	EPA-8270	<5	ug/l	BC-A0-50	02/15/94
2,4 Dinitrotoluene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
2,6 Dinitrotoluene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94



314 North Pearl Street • Albany, New York 12207 • 518 434-4546 • Fax: 518 434-0891

CLIENT: Atlantic Testing Laboratory

Date Sampled:

02/07/94

CLIENT'S SAMPLE ID: 94-0464

AES sample #: 940209 IO4

Benzo(b)fluoranthene

Samples taken by: Client

Date sample received: 02/09/94 None-Given Location:

AES SEMPTE #. 940203 104	MATRIX: water	grab			
continued: PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DATE
Diethyl phthalate	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
4-Chlorophenylphenyl ether	EPA-8270	<5	ug/l	BC-A0-50	02/15/94
Fluorene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
4-Nitroaniline	EPA-8270	<25	ug/l	BC-AO-50	02/15/94
2,Methyl-4,6-dinitrophenol	EPA-8270	<25	ug/l	BC-AO-50	02/15/94
N-Nitrosodimethylamine	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
4-Bromophenylphenyl ether	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Hexachlorobenzene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Pentachlorophenol	EPA-8270	<25	ug/l	BC-A0-50	02/15/94
Phenanthrene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Di-n-butyl phthalate	EPA-8270	<5	ug/l	BC-A0-50	02/15/94
Fluoranthene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Pyrene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Butyl benzyl phthalate	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
3,3'-Dichlorobenzidine	EPA-8270	<10	ug/l	BC-A0-50	02/15/94
Benzo(a)anthracene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Bis(2-Ethylhexyl)phthalate	EPA-8270	<5	ug/l	BC-A0-50	02/15/94
Chrysene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Di-n-octyl phthalate	EPA-8270	<b>&lt;</b> 5.	ug/l	BC-A0-50	02/15/94
			-		

<5

EPA-8270

ug/l

02/15/94

BC-AO-50



314 North Pearl Street • Albany, New York 12207 • 518 434-4546 • Fax: 518 434-0891

CLIENT: Atlantic Testing Laboratory

Date Sampled:

02/07/94

CLIENT'S SAMPLE ID:

94-0464

Date sample received: 02/09/94

AES sample #: 940209 IO4

Samples taken by: MATRIX: water

Client Location: grab

None-Given

cont	- : -		
COH	-11	iueu	

continued:	METHOD	RESULT	UNITS	NOTEBK REF	TEST DATE
PARAMETER PERFORMED	METHOD	KEDOLI I	ONTID	MOIDEM ICE	
Benzo(k)fluoranthene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Benzo(a)pyrene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Indeno(1,2,3-cd)pyrene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Dibenzo(a,h)anthracene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Benzo(g,h,i)perylene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
N-Nitrosodimethylamine	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Aniline	EPA-8270	<10	ug/l	BC-AO-50	02/15/94



314 North Pearl Street • Albany, New York 12207 • 518 434-4546 • Fax: 518 434-0891

CLIENT: Atlantic Testing Laboratory

Date Sampled:

02/07/94

CLIENT'S SAMPLE ID: Blank 7-40

Date sample received: 02/09/94 Client

Location: None-Given

AES sample #: 940209 I05

Samples taken by: MATRIX: water

grab

	MATRIX:	water	dr.	dD	
PARAMETER PERFORMED	METHOD	RESUI	LT UNITS	NOTEBK REF	TEST DATE
Phenol	EPA-827	0 <5	ug/l	BC-A0-50	02/15/94
Bis(2-Chloroethyl)ether	EPA-827	0 <5	ug/l	BC-AO-50	02/15/94
2-Chlorophenol	EPA-827	0 <5	ug/l	BC-AO-50	02/15/94
1,3 Dichlorobenzene	EPA-827	0 <5	ug/l	BC-AO-50	02/15/94
1,4 Dichlorobenzene	EPA-827	0 <5	ug/l	BC-AO-50	02/15/94
Benzyl Alcohol	EPA-827	0 <5	ug/l	BC-AO-50	02/15/94
1,2 Dichlorobenzene	EPA-827	0 <5	ug/l	BC-A0-50	02/15/94
2-Methylphenol	EPA-827	0 <5	ug/l	BC-AO-50	02/15/94
Bis(2-Chloroisopropyl)ether	EPA-827	0 <5	ug/l	BC-AO-50	02/15/94
4-Methylphenol	EPA-827	0 <5	ug/l	BC-AO-50	02/15/94
N-Nitrosodi-n-propylamine	EPA-827	0 <5	ug/1	BC-AO-50	02/15/94
Hexachloroethane	EPA-827	0 <5	ug/l	BC-AO-50	02/15/94
Nitrobenzene	EPA-827	0 <5	ug/l	BC-AO-50	02/15/94
Isophorone	EPA-827	0 <5	ug/l	BC-AO-50	02/15/94
2-Nitrophenol	EPA-827	0 <5	ug/l	BC-AO-50	02/15/94
2,4 Dimethylphenol	EPA-827	0 <5	ug/l	BC-AO-50	02/15/94
Benzoic Acid	EPA-827	0 <25	ug/l	BC-AO-50	02/15/94
Bis(2-Chloroethoxy)methane	EPA-827	0 <5	ug/l	BC-AO-50	02/15/94
2,4 Dichlorophenol	EPA-827	0 <5	ug/l	BC-AO-50	02/15/94
1,2,4 Trichlorobenzene	EPA-827	0 <5	ug/l	BC-AO-50	02/15/94



314 North Pearl Street • Albany, New York 12207 • 518 434-4546 • Fax: 518 434-0891

CLIENT: Atlantic Testing Laboratory

Date Sampled:

02/07/94

CLIENT'S SAMPLE ID: Blank 7-40

Date sample received: 02/09/94

grab

AES sample #: 940209 I05

Samples taken by: Client MATRIX: water

Location:

None-Given

con	t	i	ทเา	ed	•
COL	·	-	114	-u	•

continued: PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DATE
Naphthalene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
4-Chloroaniline	EPA-8270	<b>&lt;</b> 5	ug/l	BC-AO-50	02/15/94
Hexachlorobutadiene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
4-Chloro-3-methylphenol	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
2-Methylnapthalene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Hexachlorocyclopentadiene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
2,4,6 Trichlorophenol	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
2,4,5-Trichlorophenol	EPA-8270	<25	ug/l	BC-AO-50	02/15/94
2-Chloronaphthalene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
2-Nitroaniline	EPA-8270	<25	ug/l	BC-AO-50	02/15/94
Anthracene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Dimethyl phthalate	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Acenaphthylene	EPA-8270	<5	ug/l	BC-A0-50	02/15/94
3-Nitroaniline	EPA-8270	<25	ug/l	BC-A0-50	02/15/94
Acenaphthene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
2,4 Dinitrophenol	EPA-8270	<25	ug/l	BC-AO-50	02/15/94
4-Nitrophenol	EPA-8270	<25	ug/l	BC-A0-50	02/15/94
Dibenzofuran	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
2,4 Dinitrotoluene	EPA-8270	<5	ug/l	BC-A0-50	02/15/94
2,6 Dinitrotoluene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94



314 North Pearl Street • Albany, New York 12207 • 518 434-4546 • Fax: 518 434-0891

CLIENT: Atlantic Testing Laboratory Date Sampled: 02/07/94
CLIENT'S SAMPLE ID: Blank 7-40 Date sample received: 02/09/94

AES sample #: 940209 IO5 Samples taken by: Client Location: None-Given

MATRIX: water grab

	MATRIX: Water		gra	D	
continued: PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DATE
Diethyl phthalate	EPA-8270	<5	ug/l	BC-A0-50	02/15/94
4-Chlorophenylphenyl ether	EPA-8270	<5	ug/l	BC-A0-50	02/15/94
Fluorene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
4-Nitroaniline	EPA-8270	<25	ug/l	BC-A0-50	02/15/94
2,Methyl-4,6-dinitrophenol	EPA-8270	<25	ug/l	BC-AO-50	02/15/94
N-Nitrosodimethylamine	EPA-8270	<5	ug/l	BC-A0-50	02/15/94
4-Bromophenylphenyl ether	EPA-8270	<5	ug/l	BC-A0-50	02/15/94
Hexachlorobenzene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Pentachlorophenol	EPA-8270	<25	ug/l	BC-A0-50	02/15/94
Phenanthrene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Di-n-butyl phthalate	EPA-8270	<5	ug/l	BC-A0-50	02/15/94
Fluoranthene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Pyrene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Butyl benzyl phthalate	EPA-8270	<b>&lt;</b> 5	ug/l	BC-AO-50	02/15/94
3,3'-Dichlorobenzidine	EPA-8270	<10	ug/l	BC-AO-50	02/15/94
Benzo(a)anthracene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Bis(2-Ethylhexyl)phthalate	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Chrysene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Di-n-octyl phthalate	EPA-8270	<b>&lt;5</b> .	ug/l	BC-A0-50	02/15/94
Benzo(b)fluoranthene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94



314 North Pearl Street • Albany, New York 12207 • 518 434-4546 • Fax: 518 434-0891

CLIENT: Atlantic Testing Laboratory

Date Sampled:

02/07/94

CLIENT'S SAMPLE ID: Blank 7-40

MATRIX:

EPA-8270

Date sample received: 02/09/94

ug/1

AES sample #: 940209 I05

Samples taken by: Client water

Location: grab

None-Given

Aniline

continued: PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DATE
Benzo(k)fluoranthene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Benzo(a)pyrene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Indeno(1,2,3-cd)pyrene	EPA-8270	<5	ug/l	BC-A0-50	02/15/94
Dibenzo(a,h)anthracene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
Benzo(g,h,i)perylene	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
N-Nitrosodimethylamine	EPA-8270	<5	ug/l	BC-AO-50	02/15/94
* ilima	FDA-8270	<10	ug/l	BC-AO-50	02/15/94

<10

Report date: 02/28/94

# ATLANTIC TESTING LABORATORIES, Limited CHAIN OF CUSTODY RECORD ENVIRONMENTAL LABORATORY

X, EDNALS INTACT INTACT (YES/NO)? SHIPMENT REC'D LABORATORY REMARKS FIELD NOTES **DISTRIBITION** AT LABORATORY STORAGE LOCATION: -REPORT B = QA/QC
C = COMPOSITE
G = GRAB
H = HEXANE SURFACE WPES
ND = NOT DETERMINED BY SAMPLER
O = ONL
S = SOLID OR SLUDGE
W = WATER SEND REPORT TO: DATES REQUIRED: FAX RESULTS TO: LABORATORY IDENTIFICATION NUMBER DISTRIBUTION: WHITE WITH SAMPLES GREEN TO SCIENCE AND ENGINEERING FILES, GOLD TO CLIENT 48 LAGRASSE STREET WADDINGTON, NEW YORK 13694 315-388-4452, FAX 315-388-5510 \* SAMPLE TYPE CODE KEY NAME RECEIVED FOR LABORATORY PARAMETERS TIME: 11:30 NAME: LOGIN LIVE OF DATE: 2/9/9/ BY: DATE: TIME: SAMPLE NO. OF DATE: TIME: SAMPLES RECEIVED SCIENCE AND ENGINEERING
P.O. BOX 29
CANTON, NEW YORK 13817
315-386-4578, FAX 315-386-1012

OA/OC CODE
O DEC/ASP
O NYSDOH
O CLP
O CLP
O SW-846
O OTHER PROJECT LOCATION DATE: TIME: NAME: NAME SIG SAMPLE LOCATION 0940 SAMPLES RELINGUISHED -BY: onk CONTACT DATE: TIME: DATE: TIME: PROJECT NAME: SAMPLERS SAMPLERS PROJECT NUMBER FLV15012 9 PROJEC: NAME PAGE DATE SiG Sig NAME Sig NAME NAME

THINK QUALITY

## Appendix B

Quarterly Ambient Air Sampling Results from Sampling Event No. AS-3 (Operational Period January-March 1994)

## ATLANTIC TESTING LABORATORIES, Limited

EA Engineering, Solome, and Tubicanally Remixon, NY

P.O. Box 399 48 LaGrasse Street Waddington, NY 13694 Phone: (315) 388-4452 (315) 388-4453 Fax: (315) 388-5510

P.O. Box 29 Canton-Potsdam Road Canton, NY 13617 Phone: (315) 386-4578 Fax: (315) 386-1012

EA Engineering, Science and Technology The Maple Building 3 Washington Center Newburgh, New York 12550

Attn.: John Carnright

April 1, 1994

Misc. Sampling and Analysis

ATL Project Number: ELVT5012A-03-94

Dear Mr. Carnright:

Enclosed are the analytical reports for the sample submitted by Paul VanLinder to Atlantic Testing Laboratories, Limited on March 2, 1994.

Please feel free to contact our office if we may be of any further assistance.

Sincerely,

James P. Smith, Ph. D.

Environmental Laboratory Manager

NYSDOH-ELAP Number 10819

JPS/sal

Enclosure



#### LABORATORY REPORT

Client: ATLANTIC TESTING LABORATORY, LTD. Date of Report:

03/22/94

Address: P.O. Box 399

Date Received:

03/03/94

Waddington, NY 13694

PAI Project No:

6169

Contact: Ms. Marjorie Fornier

Purchase Order:

Verbal

Client Project ID: #60343.04

Three (3) Tenax Trap Samples labeled:

"PAFB-AS-05-03"

"PAFB-AS-07-03"

"PAFB-AS-TB-03"

The samples were received at the laboratory under chain of custody on March 3, 1994. The samples were received intact. The samples were analyzed on March 14, 1994.

## Volatile Organic Compound Analysis

The Tenax traps were analyzed for eight Volatile Organic Compounds according to EPA Method TO-1 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, EPA 600/4-84-041, U.S. Environmental Protection Agency, Research Triangle Park, NC, April 1984. The analyses were performed using thermal desorption gas chromatography/mass spectrometry. The analytical system used for the analysis of the adsorbent trap was comprised of a Finnigan Model 4500C GC/MS/DS interfaced to a Tekmar 5010GT Automatic Desorber. A thick film (5 micron) crossbonded 100% Dimethylpolysiloxane megabore column (RT<sub>x</sub>-1, Restek Corporation, Bellefonte, PA) was used to achieve chromatographic separation.

The results of analyses are given on the attached data summary sheets.

Data Release Authorization:

Eni Hunce

Chris Parnell Senior Chemist Reviewed and Approved:

Michael Tuday \_\_\_ Laboratory Director



#### RESULTS OF ANALYSIS

Client:

Atlantic Testing Laboratories

Client Sample ID: N/A

PAI Sample ID:

PAI Method Blank

Test Code:

GC/MS EPA TO-1

Matrix:

Analyst:

Chris Casteel

Tenax Trap

Instrument ID: Finnigan 4500C/Tekmar 5010 Verified by: Michael Tuday

Verified by:

Date Received: N/A
Date Analyzed: 03/14/94
Volume Analyzed: 4.2 Liters

CAS #	COMPOUND	RESULT (UG/M <sup>3</sup> )	DETECTION LIMIT (UG/M <sup>3</sup> )	RESULT (PPB)	DETECTION LIMIT (PPB)
156-60-5	trans-1,2-Dichloroethene	ND	1.2	ND	0.31
156-59-2	cis-1,2-Dichloroethene	ND	1.2	ND	0.31
71-43-2	Benzene	ND	1.2	ND	0.38
79-01-6	Trichloroethene	ND	1.2	ND	0.23
108-88-3	Toluene	ND	1.2	ND	0.32
100-41-4	Ethylbenzene	ND	1.2	ND	0.28
1330-20-7	m- & p-Xylenes	ND	1.2	ND	0.28
95-47-6	o-Xylene	ND	1.2	ND	0.28

ND = Not Detected TR = Trace Level - Below Indicated Detection Limit



#### RESULTS OF ANALYSIS

Client:

Atlantic Testing Laboratories

Client Sample ID: PAFB-AS-05-03 (03/02/94) (09:50-16:50)

PAI Sample ID:

9400830

Test Code:

GC/MS EPA TO-1

Chris Parnell

Analyst:

Instrument ID: Finnigan 4500C/Tekmar 5010 Verified by: Michael Tuday

Matrix: Tenax Trap
Date Received: 03/03/94
Date Analyzed: 03/14/94
Volume Analyzed: 4.2 Liters

CAS #	COMPOUND	RESULT (UG/M <sup>3</sup> )	DETECTION LIMIT (UG/M <sup>3</sup> )	RESULT (PPB)	DETECTION LIMIT (PPB)
156-60-5	trans-1,2-Dichloroethene	ND	12	ND	3.1
156-59-2	cis-1,2-Dichloroethene	4300	12	1100	3.1
71-43-2	Benzene	320	12	100	3.8
79-01-6	Trichloroethene	1700	12	330	2.3
108-88-3	Toluene	990	12	260	3.2
100-41-4	Ethylbenzene	410	12	95	2.8
1330-20-7	m- & p-Xylenes	1500	12	340	2.8
95-47-6	o-Xylene	460	12 .	110	2.8

ND = Not Detected TR = Trace Level - Below Indicated Detection Limit



#### RESULTS OF ANALYSIS

Client:

Atlantic Testing Laboratories

Client Sample ID: PAFB-AS-07-03 (03/02/94) (10:00-17:00)

PAI Sample ID:

9400831

Verified by:

Test Code: GC/MS EPA TO-1
Analyst: Chris Parnell
Instrument ID: Finnigan 4500C/Tekmar 5010

Michael Tuday

Matrix: Tenax Trap
Date Received: 03/03/94
Date Analyzed: 03/14/94
Volume Analyzed: 4.2 Liters

CAS #	COMPOUND	RESULT (UG/M <sup>3</sup> )	DETECTION LIMIT (UG/M <sup>3</sup> )	RESULT (PPB)	DETECTION LIMIT (PPB)
156-60-5	trans-1,2-Dichloroethene	ND	1.2	ND	0.31
156-59-2	cis-1,2-Dichloroethene	12	1.2	3.0	0.31
71-43-2	Benzene	9.2	1.2	2.9	0.38
79-01-6	Trichloroethene	8.6	1.2	1.6	0.23
108-88-3	Toluene	9.4	1.2	2.5	0.32
100-41-4	Ethylbenzene	2.6	1.2	0.59	0.28
1330-20-7	m- & p-Xylenes	8.4	1.2	1.9	0.28
95-47-6	o-Xylene	2.6	1.2.	0.59	0.28

ND = Not Detected TR = Trace Level - Below Indicated Detection Limit



#### RESULTS OF ANALYSIS

Client:

Atlantic Testing Laboratories

Client Sample ID: PAFB-AS-TB-03 (03/02/94)

PAI Sample ID:

9400832

Test Code: Analyst:

GC/MS EPA TO-1 Chris Parnell

Verified by:

Instrument ID: Finnigan 4500C/Tekmar 5010

Michael Tuday

Matrix: Tenax Trap
Date Received: 03/03/94
Date Analyzed: 03/14/94
Volume Analyzed: 4.2 Liters

CAS #	COMPOUND	RESULT (UG/M <sup>3</sup> )	DETECTION LIMIT (UG/M <sup>3</sup> )	RESULT (PPB)	DETECTION LIMIT (PPB)
				` ′	` '
156-60-5	trans-1,2-Dichloroethene	ND	1.2	ND	0.31
156-59-2	cis-1,2-Dichloroethene	ND	1.2	ND	0.31
71-43-2	Benzene	0.72 TR	1.2	0.23 TR	0.38
79-01-6	Trichloroethene	ND	1.2	ND	0.23
108-88-3	Toluene	ND	1.2	ND	0.32
100-41-4	Ethylbenzene	ND	1.2	ND	0.28
1330-20-7	m- & p-Xylenes	ND	1.2	ND	0.28
95-47-6	o-Xylene	ND	1.2.	ND	0.28

ND = Not Detected TR = Trace Level - Below Indicated Detection Limit

Performance Analytical Inc.

Environmental Testing and Consulting

20954 Osborne Street Canoga Park, California 91304 Phone 818 709-1139 Fax 818 709-2915

Chain of Custody Record Analytical Services Request

1 2 Ambient Air 100 F Air Stripper Exhaus 2-mor-94 17:30 11:30 6919 # Blank Remarks **Time Fime** -4-93 100 ATL File Trip VTS012A 3/3/ Date Date Date Expected Turnaround Time Accompanies Samples ANALYSES Sampler 3 Received by: (Signature) Received by (Signature) Received by: (Signature) Fed - EX Silv 12TAC Tine Eph. 70-Yellow Copy White Copy RENTER IN 19550 180F Icho 30°F 5/65-8100 ÷ Type of Sample 0 13 Address/Phone (9/14) STACE Bid & Air 3.0 20,0 4:4 ナバナ P.O. No. Time Time Time Time 60343.04 3 Washing Client Project No. 2-mar-94 2950186 9400830 Firm d400333 Sample No. 36% 2-mar-9 ZZ Date Date Date Date EA Engineering, Science & Technolog 2720 NIA 4.71 737400 Time 4.2 N X Sampler (S)gnature) 2-mar-94 2- mar-94 SAMOR RX AFB 0.01 R/m 0-01 Lym Date Froos Platsburgh Cr 0/ 2/4 C 50 PAFB- AS-TB-03 PAFB-AS-OS-03 PAFB- AS-67-03 Carnright Sample Identification No. Relinquished by: (Signature) Relinquished by: (Signature) Disposed by: (Signature) Client/Project Name ¥ ŧ Relinquished by: Disposal Method d John Ç Contact

8							Laboratory Ser	vice Order	Laboratory Service Order Agreement # L 0 96530	14
LABORATORY	TO ENSU	LABORATORY: TO ENSURE PAYMENT, keep green copy and return all others with a current Certificate of Insurance	eep green copy te of Insurance				EA Client Reference Number	nce Number	EA Client Reference Number 60343.04 Page of	~\s'
and IRA Form W-9 to the Origin in triplicate to address below):	W-9 to the Or address belo	riginator Location ow):	(send invoices				Master Agre	Master Agreement No. 777	776 FILE VTS 0129-4-73	<del>ر</del> س
EA Eng.	Engineering	a Science	& Technology	Date of Order	1- mar-9#		Laboratory Name and Address:	s and Address	٠.	
The m	V	19/0		Delivery Date 5 +	ard Turn	around	FIT LON	Dantic Te	ist habs	1
S Washing	hing C	onter		Project Manager Approval	3/16	7.5.7.		t	F	ı
Newburg		N y 125.	50	Project Manager Phone #	(4/4)	265-8100	1000	100 V	1 1 1 1 56/ / 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1
					Parameters					ſ
CHAIN-OF-CUSTODY RECORD	ODY RECORD									
<b>B</b>	Time	Sample ID/Location No.	-01 49]					Sample Cost	Remarks	
J-mardt		PAFB- 115-05-03					3	375 Air	Strippor Fxhoust	
J. mar-94	-	PAF B- AS- 07-03	3				3		-1	-5
2. mar 94		PAFE- 45-7003	BO3 375				8	375 7	Trip Blank.	$\top$
									d	
April 1 and										
The second secon										
										T
	741					<u> </u>	Total Cost \$	25		$\Box$
Additional Description of Services:	iption of Servi	ATT	Field Personel	Oh	Site to Aid	۲	Calabration	OF Air	r pumps.	
1. Report due	3 Odays from	1 date of order. A	1. Report due 3 Odays from date of order. AS Por agreement	ement.		4. Holding time e	Holding time expiration date.			
2 QC Protocols:	Is: U.S. EP	U.S. EPA Series 600	500 200	U.S. EPA CLP			ction	s Water	loo l	
SW846	SW846 Explanations:	78: 0 0	BOAGE	N INED Ties		Odga	Organic Analysis: V. Pesticides/PCBs	NOA Water Bs (H2O)	5	
	Heport	Je je	JOSEP				Semivolatiles			
Company of the Compan						Metals	Metals Analysis:	Inorgan	Inorganic Analysis	
	11 /10	in the second se				ເດ	Special Conditions Attached			
Pelmouished By (Signature)	(Signature)		2. Mar-94	17:30	Received By (Signature)		2-mar 99	4 17:30 Time	Method of Shipment	
ない なんか できない 美元										
Felinquiehed By (Signature)	(Signature)		Date	Time 10.8	Received By (Signature)	1014	2/2/08	Time 4	Method of Shipment	
Relinquished By (Signature)	(Signature)	lature) White Corporate Contracts	Date Green Laboratory	Time Pink-	edeived By (Sk	Copy	Dete	Time	Method of Shipment	

er A em

bor Swarce

## Appendix C

Quarterly Weapons Storage Area Stream and Activated Carbon Analysis from Sampling Event No. 24 (Operational Period January-March 1994) ATLANTIC TESTING LABORATORIES, limited & 24

Environmental Laboratory Division

# Facsimile Transmittal Cover Sheet

ATTENTION	The results of this	transmittal a	re CONFIDE	NTIAL		
John Carnight	EM ON GUME	•	Phone		11x 4 565	714 - 8003
Serder See	Atlantic Testing Lab P.O. Box 399, 48 LaG Waddington, New York FAX:(315)388-5510 Pi	13694 none:388-4452	DATE: / 2/	11HC:	vit	of pages h this cover
Please contact the sender to repo	ort any error in trans	mission of th	ese pages.	, # ,		
ANALYTICAL RESULTS	3	•				
Project No.	Duc Date	Send	ing facsimile	s of fina	il report	sheets
VT 5012 A  Sumple No.(6)	}	Send	ing prelimina	ry data	only	
94-140-1- 94	-1410			) same ar grade sekrolikaliser		-
Analyses/Methods						
See Cha	in					
OTHER INFORMATION	1					
DESCRIPTION						`
C DEDLY REQUISITED						
REPLY REQUESTED			,		······································	
				,		
An original copy will follow b	y mail					

## ATL-ENVIRONMENTAL LABORATORIES

ATL PROJECT NO.: VT5012A-04-94 CLIENT: EA Engineering, Science & Technology

ATL Accession	Client's ID		Result	Date
Number	of Sample	Parameter	(mg/L)	Analyzed
94-1408	SW-08-02	Total Aluminum	<0.2	04/13/94
		Total Antimony	<0.02 *	04/14/94
		Total Arsenic	<0.01 *	04/12/94
		Total Barium	<0.2	04/13/94
		Total Beryllium	< 0.0005	04/15/94
		Total Cadmium	< 0.0005	04/15/94
		Total Calcium	29	04/13/94
		Total Chromium	< 0.005	04/18/94
		Total Cobalt	<0.005	04/18/94
		Total Copper	<0.02	04/11/94
		Total Iron	2.7	04/20/94
		Total Lead	<0.005	04/11/94
		Total Magnesium	8.3	04/13/94
		Total Manganosa	0.66	04/20/94
	.*	Total Mercury	<0.0002	04/12/94
		Total Nickel	<0.05	04/12/94
		Total Potassium	<b>&lt;</b> 5	04/20/94
		Total Selenium	<0.005	04/20/94
		Total Silver	< 0.01	04/15/94
		Total Sodium	<5	04/13/94
		Total Thallium	< 0.005	04/19/94
		Total Vanadium	<0.01	04/19/94
Detection limit raised due to		Total Zinc	0.089	04/20/94

Detection limit raised due to matrix interference.

APPROVED BY: S. B. C. Leman NYSDOH-ELAP NO. 16819 DATE: 4-21-94

Page 1 of 2

Analytical Report

Sa No.: 94-1408

Semi-Volatile Priority Pollutant Organics by GC/MS

EA Engineering Client:

ATL Job No.:

ELVY5012

Analyst:

Clt. Job No.: Clt. Sa. No.: 60343-04 (PAFB) SW-08-02

ATL Sample No.: Date Received:

94-1408 4/1/94

Method: Dilution: DWR SW 846 8270 1

Matrix:

Water

Date Analyzed:

4/13/94

Units:

ug/L

Comments:

	11.40	Result (ppb)	PQL (ppb)	Q
.A.S No.	Analyte	Ū	5.0	
	Nitrosodimethylamine	U	10	
	niline	Ü	10	
	nenol	บ	5.0	1.
	s(2-Chloroethyl)ether	Ü	10	
	Chlorophenol	Ü	5.0	
	3-Dichlorobenzene	U	5.0	ese Nigore
	4-Dichlorobenzene	U	10	
	enzyl alcobol	U U	5.0	100
	2-Dichlorobenzene		10	Table 1
	-Methylphenol	U	5.0	
	is(2-chloroisopropyl)ether	Ü	10	
	-Methylphenol	ט	5.0	
	-Nitroso-di-n-propylamine	Ŭ	5.0	
	[exachioroethane	Ŭ	The second secon	
98-95-3 N	litrobenzene	U	5.0	
	sophorone	U	5.0	
	Nitrophenol	Ŭ	10	
	,4-Dimethylphenol	Ŭ	10	
	is(2-Chloroethoxy)methane	ט	5.0	A Section 1
	lenzoic acid	Ü	25	
	,4-Dichlorophenol	U	10	
	,2,4-Trichlorobenzene	U	5.0	
	Vaphthalene	U	5.0	
	-Chloroaniline	U	10	
	Hexachlorobutadiene	บ	5.0	
	-Chloro-3-methylphenol	U	10	· · ·
	-Methylnaphthalene	U	5.0	4
	Hexachlorocyclopentadiene	U	5.0	
	2,4,6-Trichlorophenol	U	10	
	2.4.5-Trichlorophenol	U	10	
	2-Chloronaphthalene	U .	5.0	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	2-Nitroaniline	U	10	
	Dimethylphthalate	Ŭ	5.0	A 14
	Acenaphthylene	U	5.0	
	2,6-Dinitrotoluene	U	5.0	
	3-Nitroaniline	U	10	10.00
	Acenaphthene	U	5.0	
		U	20	
	2,4-Dinitrophenol	U	5.0	
	Dibenzofuran  W POI (Practical Quantitation Limit)		Q=	Data Qualifier

U = Result below PQL (Practical Quantitation Limit)

B= Analyte found in associated Method Blank

Water

## ATL-Environmental Laboratories

ELYT5012

Analytical Report

Sa No.: 94-1408

Page 2 of 2

Semi-Volatile Priority Pollutant Organics by GC/MS

ATL Job No.: EA Engineering Client: ATL Sample No.: 60343-04 (PAFB) Clt. Job No.: SW-08-02 Clt. Sa. No.:

94-1408 Date Received: 4/1/94 Date Analyzed: 4/13/94 Analyst: Method: DWR SW 846 8270

1 Dilution: Units:

ug/L

Matrix: Comments:

	A1.4.	Result (ppb)	PQL (ppb)	Q
LA.S No.	Analyte	U	20	# Lyf
100-02-7	4-Nitrophenol	U	5.0	1. 7
121-14-2	2,4-Dinitrotoluene	U	5.0	9.1
84-66-2	Diethylphthalate	Ü	5.0	
7005-72-3	4-Chlorophenyl-phenylether	Ü	5.0	
86-73-7	Fluorene	บ	10	
100-01-6	4-Nitroaniline	Ü	20	1
534-52-1	4,6-Dinitro-2-methylphenol	U	5.0	
86-30-6	n-Nitrosodiphenylamine	บ	5.0	1.1
122-66-7	1,2-Diphenylhydrazine	Ü	5.0	
101-55-3	4-Bromophenyl-phenylether	Ü	5.0	
118-74-1	Hexachlorobenzene		20	
87 86-5	Pentachiorophenol	U U	5.0	
85-01-8	Phenanthrene		5.0	716
120-12-7	Anthracene	U	5.0	
84-74-2	Di-n-butylphthalate	Ŭ	5.0	· · · · · · · · · · · · · · · · · · ·
206-44-0	Pyrene	U	5.0	
129-00-0	Fluoranthene	U	25	
92-87-5	Benzidine	Ŭ	5.0	
85-68-7	Butylbenzylphthalate	ឋ		
91-94-1	3,3'-Dichlorobenzidine	U	10	
56-55-3	Benzo(a)anthracene	U	5.0	
117-81-7	bis(2-Ethylhexyl)phthalate	ប	5.0	
218-01-9	Chrysene	U	5.0	
117-84-0	Di-n-octylphthalate	U	5.0	
205-99-2	Benzo[b]fluoranthene	U	5.0	
207-08-9	Benzo[k]fluoranthene	U	5.0	
50-32-8	Benzo[a]pyrene	U	5.0	
193-39-5	Indano[1,2,3-cd]pyrene	Ŭ	5.0	9 1
53-70-3	Dibenz[a,h]anthracene	U	5.0	
		U	5.0	
191-24-2 U= Result b	Benzo[g,h,i]perylene selow POL (Practical Quantitation Limit)	<u> </u>	Q= Date	Qu

U = Result below PQL (Practical Quantitation Limit)

B= Analyte found in associated Method Blank

<b>6</b>	%Rec	Limits
Surrogates	46	21-100
2-Fluorophenol Phenol-d5	22	10- 94
Nitrobenzene-d5	70	35-114
2-Fluorobiphenyl	71	43-116
2,4,6-Tribromophenol	84	10-123
Terphenyl-d14	91	33 141

# ATL-ENVIRONMENTAL LABORATORIES

Report Number: VT5012A-04-94

Client Name: EA Engineering, Science and Technology

ATL Accession Number: 94-1408

Client Sample ID: SW-08-02

EPA 601 Results

Date Analyzed: 04/06/94

Compound	Result (µg/L)	Compound	Result (µg/L)
Chloromethanc	<0.5	1,2-Dichloropropane	<0.5
Bromomethane	<0.5	cis-1,3-Dichloropropene	<0.5
Dichlorodifluoromethane	<0.5	Trichloroethene	21.8
Vinyl Chloride	7.6	Dibromochloromethane	<0.5
Chloroothane	<0.5	1,1,2-Trichloroethane	<0.5
Methylene Chloride	<0.5	trans-1,3-Dichloropropene	<0.5
Trichlorofluoromethane	<0.5	2-Chloroethylvinyl ether	<0.5
1,1-Dichloroethenc	<0.5	Bromoform	<0.5
1,1-Dichloroethane	<0.5	1,1,2,2-Tetrachlomethane	<0.5
trans-1,2-Dichloroethene	<0.5	Tetrachlorocthone	<0.5
Chloroform	<0.5	Chlorobenzene	<0.5
1,2-Dichloroothane	<0.5	1,3-Dichlorobenzene	<0.5
1,1,1-Trichloroethane	<0.5	1,2-Dichlorobenzene	<0.5
Carbon Tetrachloride	<0.5	1,4-Dichlorobenzene	<0.5
Bromodichloromethane	<0.5	cis-1,2-Dichloroethene	29.6

APPROVED BY: 10. Kg
NYSDOH ELAP ID 10819

DATE: 4.18.94

DISCLAIMER: All sampling services and analytical procedures are performed in accordance with recognized analytical methodologies. The full extent of any and all liability for actual and consequential damages for the services performed shall be limited to reperformance or cost of said work. ATL is not liable for data interpretation by others.

# ATL-ENVIRONMENTAL LABORATORIES

Report Number: VT5012A-04-94

Client Name: EA Engineering, Science and Technology

ATL Accession Number: 94-1409

Client Sample ID: TB-24

EPA 601 Results

Date Analyzed: 04/06/94

Date Analyzed: 04/00/94	Result		Result
Compound	(μg/L)	Compound	(µg/L)
Chloromethane	<0.5	1,2-Dichloropropane	<0.5
Bromomethane	<0.5	cis-1,3-Dichloropropene	<0.5
Dichlorodifluoromethane	<0.5	Trichloroethene	<0.5
Vinyl Chloride	<0.5	Dibromochloromethane	<0.5
Chloroethane	<0.5	1,1,2-Trichloroethane	<0.5
	<0.5	trans-1,3-Dichloropropene	<0.5
Methylone Chloride	<0.5	2-Chloroethylvinyl ether	<0.5
Trichlorofluoromethane	<0.5	Bromoform	<0.5
1,1-Dichloroethene	<0.5	1,1,2,2-Tetrachloroethanc	<0.5
1,1-Dichloroethane	<0.5	Terrachloroothene	<0.5
trans-1,2-Dichloroethene	<0.5	Chlorobenzene	<0.5
Chloroform		1,3-Dichlorobenzene	<0.5
1,2-Dichloroethane	<0.5		<0.5
1,1,1-Trichlorocthane	<0.5	1,2-Dichlorobenzene	
Carbon Tetrachloride	<0.5	1,4-Dichlorobenzene	<0.5
Bromodichloromethane	<0.5	cis-1,2-Dichloroethene	<0.5

APPROVED BY: 10. LJ 400

DATE: 4-18-94

DISCLAIMER: All sampling services and analytical procedures are performed in accordance with recognized analytical methodologies. The full extent of any and all liability for actual and consequential damages for the services performed shall be limited to reperformance or cost of said work. ATL is not liable for data interpretation by others.

# ATL-ENVIRONMENTAL LABORATURIES

ATL PROJECT NO.: VT5012A-04-94 CLIENT: EA Engineering, Science & Technology EPA 602 Results

Date Analyzed: 04/06/94

ATL Accession Number	Client's ID of Sample	Parameter	Result (µg/L)
94-1408	SW-08-02	Benzene	1.0
<del>74</del> -1400	5,, 50 0-	Toluene	<0.5
		Ethylbenzene	<0.5
		p-Xylene	<0.5
		Chlorobenzene	<0.5
		m-Xylene	<0.5
		o-Xylene	0.6
		1,4-Dichlorobenzene	<0.5
		1,3-Dichlorobenzene	<0.5
		1,2-Dichlorobenzene	<0.5

NYSDOII-ELAP NO. 10819

DISCLAIMER: All sampling services and analytical procedures are performed in accordance with recognized analytical methodologies. The full extent of any and all liability for actual and consequential damages for the services performed shall be limited to reperformance or cost of said work. ATL is not liable for data interpretation by others.

## ATL-ENVIRONMENTAL LABORATORIES

ATL REPORT NO.: VT5012A-04-94 CLIENT NAME: EA Engineering, Science and Technology

ATL Accession Number	Client's ID of Sample	Parameter	Result	Date Analyzed
94-1407	TW-06-24	Total Phenois	<0.005 mg/L	04/06/94
		Total Suspended Solids	2 mg/1.	04/04/94
		Total Dissolved Solids	379 mg/L	04/07/94
		Ignitability	129°F	04/05/94
94-1410	AC-11-02	Corrosivity	8.98 S.U.	04/05/94
		Percent Solids	32.1 %	04/05/94

APPROVED BY:
NYSDOH-ELAP NO. 10819

DATE \$ 4/18/94

DISCLAIMER: All sampling services and analytical procedures are performed in accordance with recognized analytical methodologies. The full extent of any and all liability for actual and consequential damages for the services performed shall be limited to reperformance or cost of said work. ATL is not liable for data interpretation by others.

# ATL-ENVIRONMENTAL LABORATORIES

ATL PROJECT NO.: VT5012A-04-94 CLIENT: EA Engineering, Science & Technology

TCLP METALS RESULTS

ATL ACCESSION #	CLIENT'S ID OF SAMPLE	PARAMETER	SPIKE RECOVERY	RESULT (mg/L)	DATE ANALYZED
94-1410	AC-11-02	Arsenic	109.8 %	<0.005	04/12/94
94-1410	710 11 12	Barium	105.8 %	1.5	04/13/94
		Cadmium	101.7 %	<0.02	04/20/94
		Chromium	82.5 %	<0.05	04/20/94
		Lead	91.5 %	<0.2	04/19/94
		Mercury	102.6 %	0.003	04/12/94
		Selenium	92.0 %	<0.005	04/20/94
		Silver	112.2 %	<0.01	04/15/94

APPROVED BY:\_ NYSDOH ELAP ID 10819

Analytical Report

Sa No.: 94-1410 TCLP

Semi-Volatile TCLP Organics by GC/MS

EA Engineering Client: 60343-04 (PAFB) Clt. Job No.:

Clt. Sa. No.: AC-11-02

TCLP Extract Matrix:

ATL Job No.:

ATL Sample No.: Date Received:

4/1/94 4/15/94 Date Analyzed:

ELVT5012

94-1410 TCLP

Analyst:

Units:

DWK SW 846 8270

Method: 10 Dilution:

ug/L

Comments:

C.A.S No.	TCLP Analyte	Result (ppb)	PQL (ppb)	Q
110-86-1		Ū	50	1.1
	Pyridine	U	50	
106-46-7	1,4-Dichlorobenzene	U	100	
95-48-7	2-Methylphenol	77	100	
107-44-5	(3+4)-Methylphenol	<u>_</u>	50	1
67-72-1	Hexachloroethano	Ŭ	50	1 1
98-95-3	Nitrobenzene	Ŭ		
87-68-3	Hexachlorobutadiene	Ü	50	
88-06-2	2.4,6-Trichlorophenol	U	100	
95-95-4	2,4,5-Trichlorophenol	U	100	
121-14-2	2,4-Dinitrotoluene	Ŭ	50	
118-74-1	Hexachlorobenzene	Ü	50	
87-86-5	Pentachiorophenol	U	200	
0/-00-3	Permentorophenor		Om Dat	Qualifier .

U= Result below PQL (Practical Quantitation Limit)

B= Analyte found in associated Method Blank

Surrogates	%Rec	Limits	
2-Fluorophenol	13	21-100	. (
Phenol-d5	11	10- 94	
Nitrobenzene-d5	67	35-114	
2-Fluorobiphenyl	62	43-116	
•	15	10-123	
2,4,6-Tribromophenol	98	33-141	
Terphenyl-d14	70	23 210	

Analytical Report

Sa No.: 94-1410MS TCLP

Semi-Volatile TCLP Organics by GC/MS

ATL Job No.: EA Engineering ATL Sample No.:

**ELVT5012** 94-1410MS TCLP Analyst: Method:

Matrix Spike Recovery Sheet

DWR SW 846 8270

Clt. Jub No.: Clt. Sa. No.: Matrix:

60343-04 (PAFB) AC-11-02 MS

Date Received: Date Analyzed: 4/1/94 4/15/94 Dilution:

10

Comments:

Client:

TCLP Extract Matrix Spike @ 500ug/L. Units:

ug/L

C.A.S No.	TCLP Analyte	Result (ppb)	% REC	Q
110-86-1	Pyridine	290	58	
106-46-7	1,4-Dichlorobenzene	255	51	
95-48-7	2-Methylphenol	187	37	
107-44-5	(3+4)-Methylphenol	185	37	
67-72-1	Hexachloroethano	264	53	
98-95-3	Nitrobenzene	349	70	
87-68-3	Hexachlorobutadiene	310	62	
88-06-2	2,4,6-Trichlorophenol	184	37	
95-95-4	2,4,5-Trichlorophenol	222	44	
121-14-2	2,4-Dinitrotoluene	410	82	11111
118-74-1	Hexachlorobenzene	461	92	
87-86-5	Pentachlorophenol	242	48 O Data O	116

U = Result below PQL (Practical Quantitation Limit)

B= Analyte found in associated Method Blank

Q= Data Qualifier

Sumorated	%Rec	<u>Limits</u>	
Surrogates 2 Elegenhand	16	21-100	
2-Fluorophenol Phenol-d5	12	10- 94	
	69	35-114	
Nitrobenzene-d5	64	43-116	
2-Fluorobiphenyl	33	10-123	
2,4,6-Tribromophenol	95	33-141	
Terchenyl-d14	**	T 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	

Analytical Report

Sa No.: MTHBLK835

Suni-Volatile TCLP Organics by GC/MS

EA Engineering Client: 60343-04 (PAFB) Clt. Job No.:

ATL Job No.: ATL Sample No.: **ELVT5012** MTHBLK835

Analyst: Method: DWR SW 846 8270

Clt. Sa. No.: Matrix:

TCLP BLANK TCLP Extract

Date Received: Date Analyzed: NA 4/15/94 Dilution:

10

Units:

ug/L

Comments:

C.A.S No.	TCLP Analyte		PQL (ppb)	The second secon
4 1 0 0 E 1	Pyridine	Ū	50	
	1,4-Dichlorobenzene	U	50	137 27
	2-Methylphenol	Ŭ	100	
	(3+4)-Methylphenol	Ü	100	
	Hexachloroethano	U	50	
	Nitrobenzene	Ŭ	50	
	Hexachlorobutadiene	Ŭ	50	
	2,4,6-Trichlorophenol	U	100	
	2,4,5-Trichlorophenol	U	100	18 3 1
121-14-2	2,4-Dinitrotoluene	Ü	50	
118-74-1	Hexachlorobenzene	U	50	
87-86-5	Pentachlorophenol	Ŭ	200 O= Data	- II

U= Result below PQL (Practical Quantitation Limit)

B = Analyte found in associated Method Blank

Q= Data Qualifier

Surrogates	%Rec	Limits
2-Fluorophenol	<b>5</b> 1	21-100
Phenol-d5	26	10- 94
Nitrobenzene-d5	62	35-114
2-Fluorobiphenyl	56	43-116
2,4,6-Tribromophenol	84	10-123
Terphenyl-d14	96	33-141

Analytical Report

Sa. No.: BLANK

Volatile TCLP Organics by GC/MS Purge and Trap

EA Engineering Client: 60343.04 Cit. Joh No.: Clt. Sa. No.:

ATL Job No.: ATL Sample No.: ELVT5012 BLANK 4/1/94

Analyst: Method: Dilution: JMA SW 846 8240 1

Matrix:

TCLP Blank TCLP Extract Date Received: Date Analyzed:

4/11/94

Units:

ug/L

Comments:

mor D.A. July	Result (ppb)	† "	PQL (ppb	)	Q
	- 11		10	11.5	
Vinyl Chloride	U		- 5		
1.1-Dichloroethene	U				
	U		3		
	Ŭ		5		
	U		20	i .	
	U	,	5	1	***
	11	-	5	1.16	
Benzene			5		
Trichloroethene	U	1 '			
Tetrachloroethene	U				
Chlorobenzene	U		3	- Data	Onalifier
	Tetrachloroethene	Vinyl Chloride         U           1,1-Dichloroethene         U           Chloroform         U           1,2-Dichloroethane         U           2-Butarone         U           Carbon Tetrachloride         U           Benzene         U           Trichloroethene         U           Tetrachloroethene         U           Chlorobenzene         U	Vinyl Chloride  1,1-Dichloroethene  Chloroform  1,2-Dichloroethane  2-Butanone  Carbon Tetrachloride  Benzene  Trichloroethene  Tetrachloroethene  U  Chlorobenzene  U  U  U  U  U  U  U  U  U  U  U  U  U	Vinyl Chloride         U         10           1,1-Dichloroethene         U         5           Chloroform         U         5           1,2-Dichloroethane         U         5           2-Butanone         U         20           Carbon Tetrachloride         U         5           Benzene         U         5           Trichloroethene         U         5           Tetrachloroethene         U         5           Tetrachloroethene         U         5	Vinyl Chloride         U         10           1,1-Dichloroethene         U         5           Chloroform         U         5           1,2-Dichloroethane         U         5           2-Butanone         U         20           Carbon Tetrachloride         U         5           Benzene         U         5           Trichloroethene         U         5           Tetrachloroethene         U         5           Chlorobenzene         U         5

U= Result below PQL (Practical Quantitation Limit)

B= Analyte found in associated Method Blank

Q= Data Qualifier

Surrogates	%Rec	Limits
1,2-Dichloroethane-d4	126	76-114
Toluene-d8	103	88-110
Bromofluorobenzene	97	86-115

Analytical Report

Sa. No.: 94-1410

Volatile TCLP Organics by GC/MS Purge and Trap

JMA **ELVT5012** Analyst: ATL Job No.: EA Engineering Client: SW 846 8240 Method: 94-1410 ATL Sample No.: 60343.04 Cit. Job No.: 1 Dilution: 4/1/94 Date Received: Activated carbon Clt. Sa. No.: ug/L Units: Date Analyzed: 4/11/94 TCLP Extract Matrix:

Comments:

C.A.S No.	TCLP Analyte	Result (pph)	F	QL (ppl	b)	Q
		U		10		11:
75-01-4	Vinyl Chloride		V 2"	-	-	
75-35-4	1,1-Dichloroethene	U				
67-66-3	Chloroform	Ŭ		5		
	1,2-Dichloroethane	U		5		, 3, 1
107-06-2	A STATE OF THE PARTY OF THE PAR	20.4		20		6.4
78-93-3	2-Butanone	20.4				1 3 4
56-23-5	Carbon Tetrachloride	U				4.8
71-43-2	Benzene	Ŭ		. 5		
79-01-6	Trichloroethene	Ŭ		. 5_	196 1 6	. 4 L
		ΥΥ		5	:	7
127-18-4	Tetrachloroethene					2000
108-90-7	Chlorobenzene	Ü			)= Data O	olifier
	1 1 7 1 1 1			(		TRITITO

U = Result below PQL (Practical Quantitation Limit)

B = Analyte found in associated Method Blank

Q= Data Qualifier

Surrogates	%Rec	<u>Limits</u>
1,2-Dichloroethane-d4	113	76-114
Toluene-d8	105	88-110
Bromofluorobenzene	98	86-115

Analytical Report

Sa. No.: 94-1410 DUP

Volatile TCLP Organics by GC/MS Purge and Trap

Client: EA Engineering Cit. Job No.: 60343.04 Activated carbon Clt. Sa. No.:

ATL Job No.: ATL Sample No.: Date Received:

Date Analyzed:

**ELVT5012** 94-1410 DUP

4/1/94 4/11/94

JMA Analyst: Method:

Dilution:

Units:

SW 846 8240 1

ug/L

TCLP Extract Matrix: Comments: Duplicate

G A G No	A.S No. TCLP Analyte Result (ppb)		PQL (ppb)				Q	
C.A.S No.		77		10			1. 1. 1. Ye	
75-01-4	Vinyl Chloride	U	44.	- 10				
75-35-4	1,1-Dichloroethene	U						
67-66-3	Chloroform	Ŭ		5				
107-06-2	1.2-Dichloroethane	U		5				
	2-Butanone	12.9		20			1	
78-93-3		U	1	5	7			
56-23-5	Carbon Tetrachloride	U		5	25.5			
71-43-2	Benzens							
79-01-6	Trichloroethene	U			·····	<del></del>	:	
127-18-4	Tetrachioroethene	U	- 11	3				
108-90-7	Chlorobenzeno	U			- Det	- 0	li Gaa	

U= Result below PQL (Practical Quantitation Limit)

B = Analyte found in associated Method Blank

Q= Data Qualifier

Commentes	%Rec	<u>Limits</u>	Q
Surrogates 1.2-Dichloroethane-d4	61	76-114	++
Toluene-d8	100	88-110	
Bromofluorobenzene	109	86-115	•

Analytical Report

SR. No.: 94-1410 SPIKE

Volatile TCLP Organics by GC/MS Purge and Trap

Matrix Spike Recovery Sheet

Client: Clt. Job No.: EA ENGINEERING

ATL Job No.: ATL Sample No.: **ELYT5012** 94-1410 SPIKE Analysti Method:

JMA SW 846 8240

Clt. Sa. No.:

60343.04 Activated carbon

Date Received: Date Analyzed:

4/1/94

Dilution:

1

Matrix:

TCLP Extract

4/11/94

ug/L Units:

Comments:

Matrix Spike 50 ug/L

CACNE	TCLP Analyte	Result (ppb)		% Rec	Q
C.A.S No.		U		NA	
75-01-4	Vinyl Chloride			121	
75-35-4	1,1-Dichloroothene	61	1.7		
67-66-3	Chloroform	Ŭ	1	NA	
107-06-2	1,2-Dichloroethane	U	1	NA	Jan 197
	2-Butanone	23		NA	
78-93-3		Ŭ	17.1	NA	
56-23-5	Carbon Tetrachloride	52	14	104	
71-43-2	Benzene		1	97	
79-01-6	Trichloroethene	49			
127-18-4	Tetrachloroethene	Ŭ		NA	
	Chlorobenzene	52		104	
108-90-7	Chiorodenzene			O= Data	Qualifier

U = Result below PQL (Practical Quantitation Limit)

B- Analyte found in associated Method Blank

Surrogates 1,2-Dichloroethane-d4	%Rec 127	<u>Limits</u> 76-114	Q + 1
Toluene-d8	105	88-110	
Bromofluorobenzene	96	86-115	 11

			. •	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		へんこの	7			aboraton		Laboratory Service Order Agreement # 1		002650
LABORATORY: and return all other	TO ENSUI	LABORATORY: TO ENSURE PAYMENT, keep green copy and requin all others with a current Certilicate of insurance and IRS Form W-9 to the Originator Location (seed involces	of insurance	4	· >	) )	1		, w w	A Client R	eference Nu erms & Cor	EA Client Reference Number 603 43.09 Page of Subject to Terms & Corditions printed on back OR	3.04 Page	Page Lof
in triplicate to address below):	dress belo	(as):			c		7		•	Master	Agreement	No. ATL File	VISOLZA	4-43
H Eng	naple bld	7 0	SCICINE 1 ECHANIORY Dute of Order 31 - THATE 9 +	y Defector	Date of Order	andard	Sandard Turn Ground	Phon		ATL	ATLantic Te	Test Labs	592	
3 4	ton N. A	Center y 12550		Project	t Manager t Manager	Approval Phone # &	370	Project Manager Phone # (914) 565-8100	11	ŽŮ	og co	on top, Ny 1361	617	
						Pare	meters	X			ָר ר	DOGGING TO		
CHAIN OF CLISTODY RECORD	Y RECORD		7	0	अ०		ਰ	17,74	- 1					
Date	Ē	Semple (D/Location No.	109 109 109		UZYJ	अंग अभ्या १४४ १	72L	y redy	) Pruo	'क्ट <i>भू</i>	Semple Cost		Tenes T	
St-mar-44/	5.30	Tw-06-24	201	3608	114	E ASh	-3	(	1	011-110	SIMOIL	Finished	E FFI Jent	
Y	51.5	ą	201	3	1	4.8	1	[]		OF ST	787.5	Justace T	Juriace Water With Street	A STEER
31-nor-of	10:33	TG-24	08			1	13035	30 05	16		200 Z	1.	Activated Carbon Sande	Thurs?
<u> </u>	7				,	-			-					
				,										
						+		+	+					
					-									
414										+				
	,								+		-			
				+	+	+								
						-			12	ital Cost	Total Cost \$ 3560-5			
Additional Description of Services:	ion of Servi	2990												
1. Paport due 3 Odaya from dete of order.	Odeys from	A.	Ser 200 500	adreement	PACIP			₹	4. Holding time expiration date	epration 4.	:	Water	733	
SWB46	Explanations:				· .				Organie	Organic Analysis:	9	Water	Soil	
3. Paporting Definerables: CLP	verables: C	A.P. Newy	USACE	BON	P Tier!					Pesticides/PCBs	å	(HEO)		
EA Standard Report	poort	Offer					: /	·:·		Metals Analysis:	•	(recol		
(	:							ry Ø	5. Special Conditions Attached	tions Attack	9			
Pall	11.4	Q	3-march	16:5	.30		1010/00		Express	3/2	3/20094	08.97	Fed-1	X
Perferquished By (S	(augus)			Twe		Received	Received By (Signature)	e e	•	Date	. Tagʻa		Method of Shipment	
Refinquished By (Signature)	Spnature)		Oete	- Lime		Paceived (	Received By (Signature)	(aur		Chatte			Method of Shipment	#
Refroglated By (Signature)	Sprettine)		Oete	Tae	1	Posts C	1 By Signer	Received By (Signature)		Des.	ı	Time	Method of Shipment	7
EA 0507 FAIR 67192	N- Mark	Corporate Contracts	Green - Laboratory	_	Fint - Orig	Poster	6 - 6 - B	anch Copy						